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Environmental Assessment

Portneuf Westbench Fuels Management Project

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Bureau of Land Management, Pocatello Field Office
Caribou-Targhee National Forest, Westside Ranger District
Gateway Interagency Fire Front

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Chapter 1- Purpose and Need for Action

Introduction

The Gateway Interagency Fire Front (GIFF) is a consortium of federal and tribal agencies, city and county fire organizations and other emergency responders. Its Intergovernmental Agreement (2000) states that the purpose of the cooperative is to suppress and prevent wildland urban interface (WUI) fires in and adjacent to the initial response areas of the cooperating agencies, and prevent fires through education and public outreach. As members of GIFF, the Bureau of Land Management, Pocatello Field Office and the US Forest Service, Caribou –Targhee National Forest, Westside Ranger District have developed this environmental assessment to analyze a proposed fuels management project in and adjacent to the community of Pocatello, Idaho. The project area is located south of Interstate 15 and stretches roughly from Gibson Jack on the west to Inkom on the east. Approximately 27,200 acres are contained within the project analysis area – a mixture of private, federal, state, city and county lands. Of the total acreage, the agencies expect to treat about 2,740 acres of federal and state lands through fuels treatments.

The Shoshone-Bannock Tribes have ancestral rights to uses of public lands. This project falls within "ceded lands" for which special rights have been retained by the Shoshone-Bannock Tribes. The Fort Hall Indian Reservation was created pursuant to an Executive Order dated June 14, 1867 and the 1868 Fort Bridger Treaty signed by the U.S. Government and the Shoshone and Bannock Tribes. The Shoshone and Bannock peoples agreed to make the Fort Hall Reservation their permanent homeland, and to reserve the right to hunt, fish, and gather off reservation. A series of land cessations occurred over the next few years, which ultimately resulted in the present day reservation boundaries established in 1900. The Treaty retained rights including, but are not limited to, wood-gathering, hunting, fishing, harvesting plant resources, livestock grazing, and practicing tribal cultural activities on unoccupied Federal lands, which include all BLM and USFS lands. As Federal agencies, the BLM and USFS have trust responsibility to the Shoshone-Bannock Tribes for the management of Federal lands. Trust responsibility is related to traditional/cultural uses, as well as the health of the land and water resources or the socio-economic needs of the Tribes. These trust responsibilities supersede all actions associated with the Portneuf Westbench Fuels Management Project. The BLM and USFS will continue to uphold their trust responsibility to protect, conserve, and manage those trust resources.

Conformance with Applicable Land Use Plans

The Revised Forest Plan for the Caribou National Forest directs managers to "coordinate with adjacent landowners to reduce risk to life and loss of property from wildfire." (*RFP 2003, pg 3-3*) The goals of this plan include managing forest resources and ensuring that fire and other management activities treat natural and activity fuels with priority on community protection and reducing risk from uncharacteristically large or intense wildland fires.

The proposed action is consistent with the Federal Land Policy and Management Act and tiers to the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for the Pocatello Resource Management Plan, 1988. (pg 6).

Existing Condition

The primary vegetative components in the project areas are juniper, mountain brush and sagebrush. The overall departure from historic conditions in these vegetation types is considered moderate to high across the assessment area. Ecological processes have changed from historic cycles and stand structure is not considered to be in desired condition. Interruption in the historic fire regime has allowed juniper species to encroach on the more productive mountain brush sites. Based on these factors, the potential for a high-intensity wildfire has increased.

The juniper woodland is becoming more attractive to urban expansion, especially on the western slopes of the Bannock Range as the city of Pocatello continues to grow. More recently, urban development is encroaching and reducing mountain brush acreages and dispersion. Due to the increase in urban development in the project area, further disruption is occurring to historic fire regimes. (Caribou National Forest and Surrounding Areas Sub-regional Assessment for Properly Functioning Condition (CNF-PFC), May 6, 1997 Draft, pages 11-16)

Desired Future Condition

The desired future condition within this area would consist of woodland types and mountain brush species. It should have multiple aged shrub layers, and a balanced understory herbaceous layer. (Caribou National Forest Revised Forest Plan (2003), page 3-17). According to the CNF-PFC, 40% of juniper should be mature and old age class. Forbs, grasses and shrubs would be resilient. Fire regimes would be within historical ranges and of mixed severity, with the fire return interval at 10 to 30 years for juniper and 20 to 40 years for mountain brush and sagebrush. Fire regime would be of mixed severity. The percent of area altered or disturbed by fire would be within the historical range of variability. Connectivity, shapes, size, and distribution patterns would be within the historical range. (Caribou National Forest and Surrounding Areas Sub-regional Assessment for Properly Functioning Condition (PFC), May 6, 1997 Draft, pages 11-16)

Need for Action:

Fire regimes in the forest and woodland types within Southeast Idaho have been significantly altered by past management actions and fire exclusion. The resultant fuel loadings have created conditions which support the development of high intensity wildfires which can result in loss of public and private property. The fire frequencies and vegetative conditions within the Pocatello WUI have departed from historic conditions. A fuels inventory, Standards and Guides Assessment[1] and concurrent work conducted by the Westside Ranger District have identified the project area at high risk for high intensity, large, stand replacement wildfires with the majority of lands with fuel loads greater than natural historic levels (Fire Condition Class 3).

The goals for this action include:

- ? Reduce the potential for loss of life, property, and natural resources to wildfires and enhance firefighter safety in the project area.
- ? Reduce wildfire suppression costs.
- ? Protect the long-term scenic quality of the area.
- ? Provide education and incentives for cooperative hazardous fuel management projects on private, county, state, and federal lands in the Pocatello (WUI) area.
- ? Meet natural resource goals and objectives described in the National Fire Plan, the BLM Pocatello RMP (1988) and the Caribou RFP (2003), the GIFF Charter (1987, as revised) and the Inkom Allotment Standards and Guides Assessment (2000).

Chapter 2.- Proposed Action and Alternatives

No Action Alternative:

[1] The "Standards and Guides" reference used throughout this document is the common name for BLM's *Idaho Standards for Rangeland Health and Guidelines for Grazing Management (1997).*

Fuel management work to manipulate vegetation structure, composition and patterns that could alter fire behavior to provide better protection for private and public lands and firefighter safety would not occur. Full wildfire suppression activities would occur in the project analysis area. It is unlikely that thinning activities would occur on adjacent private land. General maintenance of roads and trails would continue; recreation activities would continue at present or higher levels as the Pocatello area population increases over time; infestations of noxious weeds would be treated; grazing on BLM land would continue under the Standards and Guides. Grazing would continue on Forest Service lands.

The Pocatello WUI would remain the highest priority suppression area within the BLM's East Zone of the Upper Snake River District and the USFS Portneuf Fire Management zone requiring large numbers of suppression resources (engines, crews and air tankers) for all wildfire responses. Wildfire rehabilitation efforts would continue per agency policy. No federal monies would be available to private landowners via the Portneuf Westbench Project /National Fire Plan.

Alternative 2 - Proposed Action

BLM and the Forest Service, in cooperation with Idaho Department of Lands, propose to treat federal and state lands through the combined use of mechanical treatments and prescribed fire. The treatment areas total about 2,740 acres, comprising 52 treatment units within the 27,200-acre analysis area. Implementation of several of these treatment areas would begin in the summer of 2003 and continue over nine years.

The Proposed Action applies only to federal and state managed lands. Other landowners within the project analysis area would be invited by GIFF to participate in fuel management reduction projects, but are under no obligation to do so. To simplify presenting the proposal and to better convey potential foreseeable actions for environmental consequences assessment, the maps and discussion generally do not distinguish between land ownership. For analysis purposes, the assumption is that about 70% of private landowners would participate, and would use only hand-thinning techniques. Public scoping responses indicate a broad level of interest.

The proposed treatments on federal and state lands are the minimum necessary to effect a change in the intensity of wildfires within the Pocatello WUI. The fire departments within GIFF would coordinate with private landowners to identify and implement appropriate fuels management treatments on private lands. The proposed treatments are not intended to eliminate wildfire from the project area. The project areas would be treated to reduce the build up of fuels and create areas of "defensible space" in and around the Pocatello WUI. (See Treatment Area Map in attachment 1)

Explanation of Proposed Treatments See Treatment Unit Table in attachment 2. Note: "Proposed Year" is for planning purposes only. Budget, crew and equipment availability and other factors may alter implementation schedule**.**

Prescribed Fire (847 Acres):
These areas would be burned to include a mosaic burn pattern not to exceed 40 percent burned area. Pile burning would also be used to reduce slash accumulations. An approved burn plan would be used to specify fuel, weather, personnel and other parameters.

Mechanical Thinning (1,215 Acres):
A slash buster and other heavy mechanical equipment would be used to thin and prune juniper on 660 acres. Chainsaws and other hand tools would also be used to hand thin and prune over-story vegetation on 507 acres. These areas would be thinned and pruned, not to exceed 50 percent of the treatment area. Chainsaws and other hand tools would be used to brush out and thin overgrown vegetation along portions of three roads (Forest roads 287, 290, 294) and two trails (Upper and Lower Gibson Jack Trails) to create fuel breaks on 48 acres.

Mechanical Pretreatment with Prescribed Fire (678 Acres):
Chainsaws and other hand tools would be used to pre-treat areas that subsequently would be treated with prescribed fire. These areas would be treated not to exceed 50 percent of the treatment area.

Fire Risk Zones (See Fire Risk Zone Map in attachment 1)

The design of the alternative is based on a concept of three strategically placed zones centered on residential and business structures or developed recreation sites (Sierra National Forest, 2001 pg. 5, Nowicki, 2001 pg. 1-2). These zones are a home ignition zone, a defense zone, and a threat zone. Treatment goals and vegetation / fuel reduction treatment prescriptions vary for each. A fourth zone, the general forest zone, encompasses the remainder of the project area. *See Appendix 1 for Fire Risk Zones map*.

The **home ignition zone** (defensible space) is centered on residences, businesses, and important structures, and extends outward for 50 to 200 feet, depending on topography. Fuel treatments are most intense in this zone with the objective of creating fuel conditions that allow firefighters to safely and effectively defend the structure from a wildfire, to increase the chance that the structure can survive a wildfire on its own, or to keep a structure fire from igniting the adjacent forest vegetation. Providing for safe ingress and egress to structures is integral to successfully defending structures. Many firefighting agencies have publications describing treatments to accomplish this goal. Creating a defensible space is largely dependent on the property owner. Homeowners working in cooperation with GIFF would be the primary emphasis for fuels reduction activities within this zone. There are approximately 7,300 acres within this zone. Approximately 100 acres of Federal and/or State owned property within this zone would be treated.

The **defense zone** extends outward from structures for approximately 0.25 mile. The fuel treatment objective is to protect loss of life and property by creating defensible space and reducing fire intensity. Federal, State, Tribal and County agencies working in cooperation with GIFF would be primarily responsible for fuels reduction activities within this zone. There are approximately 5,500 acres within this zone. Approximately 500 acres of Federal and/or State owned property within this zone would be treated.

The **threat zone** extends beyond the defense zone approximately 1.25 miles for a total of 1.5 miles. Fuel treatments in this zone would be strategically located to interrupt fire spread and reduce fire intensity. Treatments would be designed to modify behavior of wildfires approaching the defense zone, thereby allowing firefighters to take advantage of reduced spotting, lower rates of spread and intensity, to more effectively contain the fire approach to the defense zone. The analysis area includes approximately 46,400 acres in this zone, with 25,800 acres extending outside the analysis area. Approximately 2000 acres of Federal and/or State owned property within this zone would be treated.

The **general forest zone** encompasses the remainder of the project area. Vegetation and fuel treatments in this zone would be primarily to provide some protection to the adjacent lands. The project area includes approximately 3580 acres in this zone. Approximately 100 acres of Federal and/or State owned property within this zone would be treated.

Project Design Specifications

All treatments proposed in this alternative would follow established agency management plans, policies and procedures, with these additional design criteria:

1. In perennial riparian areas, maintain a 200-foot buffer on either side of streams and springs. On intermittent or ephemeral streams and springs, maintain a 100-foot buffer. Only “lop and scatter” hand thinning would be permitted within these buffers.

2. All quaking aspen and big-tooth maple stands burned during prescribed fire operations would be fenced (using on-site materials where available) prior to livestock turnout.

3. Machine thinning would only be used on slopes less than 40 percent due to equipment limitations.

4. Machine thinning would be used only on snow pack, frozen, or dry ground to reduce soil disturbance.

5. All vehicles entering and leaving project areas would be washed and cleaned to reduce the spread of invasive species in treatment areas.

6. In any consecutive three-year period, no more than 30% of a unit's total area would be treated on slopes that are 45 percent or greater.

7. Prescribed fire intensity level would be managed to minimize impact on root zones, retain 25 percent or greater ground cover.

Alternatives Considered, but not Analyzed in Detail

1. Only treat areas within one-eighth to one-quarter mile of private land.

   Rationale:
   This alternative was proposed by the public. The basis for this proposal is "The Cohen Study" (Cohen 1998). Design criteria and priorities within the proposed alternative include emphasis on this area (the "home ignition zone") however, current and historical fire behavior within the project area identify a need to expand treatments beyond the home ignition zone to optimize firefighter and home owner safety (See "Wildfire Occurrence Map" in Attachment 1). The proposed treatments extend into the "defense, threat and general forest zones" thus increasing the number of strategic and tactical options available to fire fighters. Expanding the treatment areas into these additional zones would increase the probability of success in controlling a large wildfire. Treating only areas within one-eighth to one quarter mile of private land does not meet the purpose and need of the project.

2. The proposal presented during scoping included additional treatment units and types to incorporate watershed level analysis of approximately 36,000 acres.

   Rationale:
   The concept included all lands within the Pocatello Municipal Watershed. This proposal was not analyzed in detail based on comments developed during initial Interdisciplinary Team (IDT) meetings suggesting a prioritization of treatment units within or closer to the Pocatello WUI.

3. Eliminate machine treatments and use only hand-thinning method.

   Rationale:
   Concern over availability of hand crews and the cost difference between hand thinning versus machine thinning eliminated any further analysis. Not being able to complete treatments would not meet the purpose and need of this project.

Chapter 3. Environmental Consequences

This section is a synopsis of specialists' reports describing the environmental impacts of the alternatives. The complete Resource Specialists' Reports are located in the project record, and on the internet at ***www.id.blm.gov/offices/pocatello***. Other supporting documentation is available in the project record.

Air Quality

*No Action Alternative***:** The risk of large-scale wildfire is greatest under this alternative. Wildfire would have a much larger impact on air quality than prescribed fire due to higher burning intensities and production of smoke over a much shorter period of time. High-intensity wildfires could emit up to ten times the particulates produced during a prescribed fire. Air quality in the communities of Pocatello and Inkom would likely be severely compromised during a wildfire and NAAQS violations for visible particulate matter (both PM_{10} and $PM_{2.5}$) would likely occur. Residents with upper respiratory problems could have trouble breathing during large wildfire events. Vehicular accidents along both major and minor roadways could occur due to reduced visibility. Recreational experiences would be temporarily diminished due to smoke, ash fall, and reduced visibility**.**

Proposed Action Alternative: An analysis of potential particulates emitted during prescribed burning activities was conducted using the First Order Fire Effects Model (FOFEM v 5.0). Total emissions calculations were made for both PM_{10} and $PM_{2.5}$ by treatment year. The estimated amount of particulate matter produced during any treatment year is well under EPA's general conformity *de minimis* levels (100 tons year for PM_{10}) and would not violate the Clean Air Act.

Smoke produced from prescribed burning activities could temporarily reduce air quality. However, the use of prescribed fire would allow land managers to hold smoke to a minimum duration and intensity compared with that of a large wildfire event. Smoke would likely collect in nearby valley bottom areas for a short time following burning. For approximately one to three days following a prescribed burn, residual smoke would likely settle close to the ground during the night and would remain until the onset of surface heating and lifting the following day. Proximity to the burn, wind direction, and mixing heights would determine how individual residents would be affected. The amount of smoke produced under the proposed action is not expected to create health concerns among nearby populations. Burning would not be conducted unless favorable smoke dispersal conditions are projected.

Further smoke management concerns and mitigation would be addressed in the prescribed fire plan.

Little to no visibility impairment is anticipated in surrounding Class I visibility areas. All Class I areas are more than 60 miles (100 kilometers) away from the project area. Prevailing winds in both the spring and fall should move smoke away from and not towards any Class I visibility area.

Dust and exhaust from vehicles during machine mechanical treatments would contribute short-term effects to air quality (particulate concentrations). Effects would be localized to the immediate vicinity of the operations.

In summary, under this alternative, there could be short term impacts from smoke, dust, and other airborne particulates from treatment activities. The participating agencies will comply with the National Air Ambient Standards in the Clean Air Act.

Cultural Resources

No Action Alternative: Under this alternative, significant disturbance could occur from wildfire suppression activities. Disturbance could result from construction of fire control lines by heavy equipment and hand crews. During a wildfire emergency, potentially important cultural sites could be impacted.

Proposed Action Alternative: A class III or intensive cultural resource inventory has been conducted. All identified sites would be avoided; therefore, no environmental consequences would result.

Native American Religious Concerns

No Action Alternative: No effect.

Proposed Action: No effect. All documented archeological sites will be avoided. The Shoshone-Bannock Tribes consider juniper and sagebrush as traditional medicinal resources. In consultation with the Tribes, the agencies have determined that the project would have no effect on these resources.

Vegetation and Fuels

No Action Alternative: Fuels would continue to accumulate until removed by fire. Depending upon environmental conditions present at the time of ignition, a wildfire could result in severe fuel reductions and a significant degradation of the natural and human environment.

In the absence of fire, aspen, maple, and mountain shrub communities would continue to become decadent and die off creating increased fuel loads. Little to no vegetative reproduction in these vegetation types would occur. Juniper and Douglas-fir would continue to expand their range into surrounding plant communities. Wildfire could burn a large portion of the project area and produce even-aged plant communities interspersed with patches of weeds. The root systems of sprouting species would likely be damaged or killed causing a reduction in mountain shrub communities across the landscape. This type of damage can be attributed to increased fire intensities characteristic of heavy fuels.

Proposed Action Alternative: Thinning of encroaching conifers and the subsequent prescribed burning of the treatment area would improve the local hardwood and shrub component. Prescribed burning would improve the vigor and long-term sustainability of the herbaceous, aspen, maple, and mountain shrub communities by promoting vegetative reproduction. Aspen stands would vigorously re-sprout after treatment, increasing in size and distribution – especially where encroaching conifers have been removed. All mountain shrub species found in the treatment area, with the exception of mountain big sagebrush, would re-sprout and recover favorably following prescribed fire treatments. Changes in the structure and productivity of the vegetation complex would occur. Treatments applied over the life of the project would create a mosaic of early, mid, and late seral plant communities across the landscape. A temporary reduction in the canopy cover and density of mountain big sagebrush is expected. However, because the project area falls within an 18-20 inch precipitation zone and treatments would be conducted in a mosaic pattern leaving seed sources intact, swift reestablishment of mountain big sagebrush into treatment areas is anticipated.

Crown fuel reduction, as proposed, would expose the residual fine fuels to increased solar radiation, which could lower fuel moisture content and promote production of additional fine fuels. This could, in turn, increase the ignition potential and result in elevated rates of spread of any subsequent wildfires. Remaining fuels may also be exposed to intensified wind fields, accelerating both desiccation and heat transfer, which could result in higher energy release components. Prescribed burning would increase nutrient availability and further stimulate production of fuels with high surface to volume ratios, which could result in an additional increase in fine fuel loading within the project area (Omi 2002).

Thinning and ladder fuel treatments would increase downed woody material until slash treatments are applied. Broadcast burning would decrease all downed woody material in a mosaic pattern across the treatment units. Piling and burning slash would decrease the larger downed woody materials in patches or pockets and leave the smaller needles, twigs and branches across the units. Where public road access is available to federal lands, wood products would be made available to the Tribes for a short period of time, after which the Federal agencies would dispose of the material.

Overall, reducing surface, ladder and crown fuels would decrease the likelihood of crown fires. Some surface fire intensity would be reduced by removal of fine fuels through broadcast burning. A reduction in ladder fuels provides less opportunity to initiate crown fires. A decrease in crown continuity (crown bulk density) provides less opportunity to sustain crown fire (Agee 1996).

Rangeland Resources

The Inkom Allotment environment is summarized in two documents: (1) Standards and Guides Evaluation and subsequent Environmental Analysis (ID-075-2002-0005), and (2) Evaluation and Assessment of the Inkom Allotment.

No Action Alternative: The analysis area covers four grazing allotments across Forest Service, BLM and State lands with 7,023 Animal Unit Months (AUMs). A high intensity fire could impact all four allotments with a potential loss of these AUMs. Wildfire areas are closed to grazing for a minimum of two growing seasons. These closures would cause financial impacts to grazing permittees due to lost grazing capacity. Federal and state agencies would also lose revenue from the grazing of livestock on these ranges for at least two growing seasons. With no treatment of the area there is increased risk of a stand-replacing wildfire causing a greater loss of grasses and forbs on these allotments. Should a stand-replacing wildfire occur, there would potentially be a loss of 7,023 AUMS for at least two full growing seasons, and a displacement of 1,705 cattle.

Proposed Action Alternative: Impacts of the proposed action on range resources would be minimal. Through prioritization of the treatment areas on the allotments, livestock use can continue. Approximately 80% of the prescribed burn units are on slopes with little, if any, livestock use. All treatments and impacts to the range resources would be in compliance with the Best Management Practices for the State of Idaho as addressed in the Inkom Standards and Guides Evaluation and Assessment document.

Cumulative Impacts of the Proposed Action: Design criteria and placement of treatment units would reduce cumulative impacts. By limiting treatment to 30 to 50% of a unit area, the range resource impact would be reduced to manageable levels. Secondary long-term cumulative impacts would be beneficial to livestock management, including a potential increase in forage for livestock and improvement to livestock distribution away from areas on the allotments that either do not meet Standards and Guides or have livestock distribution problems.

Noxious and Invasive Weeds

No Action Alternative: A stand-replacing fire would likely cause an increase of both noxious and invasive plants, increasing weed control costs. These plant species are identified in the Inkom Standards and Guides Evaluation and EA (BLM ID-075-2002-0005) and the Caribou Revised Forest Plan page 3-35. Any wildfire would likely increase the frequency of cheatgrass and other invasive plant species in the burned area. This would, in turn, lead to a potential increase in fire frequencies.

Proposed Action Alternative: Proper implementation of treatments would allow for monitoring, inventory and project adjustment in a controlled manner. Noxious and invasive plant spread would be minimized, under this alternative.

Cumulative Impacts: The currently known noxious and invasive plants within the analysis area are manageable with proper monitoring and treatment. However, with each wildfire, these species spread, increasing their impacts and the costs of control. Noxious and invasive plant species identified include leafy spurge, bull thistle, knapweed, Scotch thistle, hounds tongue, dyers woad, mullen, Canada thistle and cheatgrass.

Recreation

Common recreation activities within the project area include off-highway vehicle (OHV) use, hiking, mountain biking, horseback riding, cross country skiing, big game hunting, sight-seeing, and driving for pleasure.

The off-highway vehicle designations within the project area are "limited" and "closed". Restrictions on motorized vehicles in the "limited" areas include: (1) Limited to designated routes, (2) Limited to existing roads and trails, (3) Seasonal closures, and (4) Closures for over-snow vehicles.

Maps of the OHV designations and details on "limited" restrictions can be found in the BLM's Pocatello Off-Road Vehicle Plan and the Caribou National Forest Travel Map.

No Action Alternative:

Trail Use: There would be no change from the existing condition.

Off-Highway Vehicles: In the event of a high intensity wildfire, large portions of the project area could be cleared of vegetation, increasing the potential for OHV use to occur in areas that are inconsistent with current designations.

Proposed Action Alternative:

Trail Use: Short-term increases in trail use caused by project implementation activities can be expected. If activities associated with project implementation create a public safety issue, trails may be temporarily closed.

Due to vegetation removal, there would be an increase in users' ability to leave designated travel routes and pioneer un-authorized trails. With the reduction of trees, brush and fuels along the trails, there would be a strong tendency to ride off the trail. This would lead to degradation of the other trail users' quality of experience and impacts to other resources. This is especially true for Project area 4 (Gibson Jack) where a prescribed burn is planned between Slate Mountain and Upper Gibson Jack Trails.

Removing hazard fuels adjacent to the trails would provide better sight distance for the trail riders so they can see oncoming traffic, reducing accidents.

Off Highway Vehicles: The Proposed Action would increase the potential for unauthorized cross-country travel by OHVs. Transporting equipment to the project area may create new routes that could attract OHV use that is inconsistent with existing designations.

Possible impacts are: increase in trail users not staying on designated trails, violating travel plan restrictions, increasing impacts to natural resources, wildlife and other users. The concern is that by thinning, creating fire lines, and reducing the vegetation along and adjacent to trails in the specific project areas, users (especially motorized) would be more likely to violate travel management restrictions. Impacts would likely include site specific OHV designation violations, which would be considered relatively minor when looking at the entire project area.

Visual Resources

Visual Resource Management Classes within the project area include:
BLM - Class II, III, & IV: (BLM Class Objectives are described on pages 6-7 in the H-8410-1 Visual Resource Inventory Handbook.)
Forest Service - Modification, Partial Retention, and Retention. (Forest Service Visual Quality Objectives are described in Table 3.3 (page 3-25) of the Final Environmental Impact Statement for the Caribou National Forest Revised Forest Plan, Volume I.)

No Action Alternative: In the long-term, this alternative could decrease the variability in vegetative type and age class, decreasing scenic diversity. If a large, high intensity wildfire occurs within the analysis area, the landscape character could be greatly altered with the complete loss of existing vegetative cover and possible scars from suppression methods.

Proposed Action Alternative: Prescribed fires would temporarily disrupt the scenic quality of the isolated treatment areas. Mechanical thinning and hand thinning would not disrupt scenic quality. The level of change to the characteristic landscape would be minimal with all fuel reduction activities and would not attract the attention of the casual observer. This alternative is consistent with the management objectives for visual resource management classes within the project area.

Soils

No Action Alternative: Fuel loads are such that a high-intensity wildfire could be detrimental to the soil. This could possibly produce erosion rates in excess of soil loss tolerances (3 tons/acre/yr) (Exhibit 618-14, NRCS National Soil Survey Handbook 2002), reduce the rate of vegetative recovery, increase water repellency and change physical properties of the soil reducing productivity.

Proposed Action Alternative: Clearing and thinning of vegetation along trails and in riparian areas with the "lop and scatter" method would increase groundcover that would provide erosion protection and water retention. Plants retained in the general areas should produce more biomass that contributes to higher organic matter contents of the soils, which increases soil productivity. The proposed treatments would not adversely affect soil productivity in the watersheds.

Hydrology/Water Quality/Riparian Zones

No Action Alternative: Should a wildfire occur, not only can overall watershed stability be compromised, but sufficient sediment could be generated to measurably increase volumes above established Total Maximum Daily Loads (TMDLs) within the Portneuf River, a water quality-limited river. The TMDLs for the Portneuf River currently target suspended sediment (high flow and low flow targets) and subsurface streambed sediment that could threaten fish eggs during incubation. Beneficial uses of the river, including salmonid spawning, could be compromised, possibly violating State Water Quality rules and regulations and Section 303 of the Clean Water Act.

Under this alternative erosion and sediment rates from a wildfire are increased 5% to 30%, compared to a wildfire (post treatment) under the proposed alternative. Wildfire impacts would produce erosion and sediment from the watershed, negatively impacting floodplains. There could be a deterioration of overall watershed stability and downstream water quality in the Portneuf River.

There would be no treatment effects to the riparian areas. A typical wildfire would be expected to kill some vegetation and remove the above-ground portions of the majority of vegetation, followed by a large surge of re-sprouting in moister soils. An increase in erosion along the banks of the streams could be anticipated until the vegetation recovers.

Cumulative Impacts of the no-action alternative: Erosion and sedimentation would be greater and the cumulative impacts to water quality would be greater under the no action alternative than the proposed alternative. Indirectly, wildfires could degrade overall water quality in adjacent streams and downstream in the Portneuf River. The actual effects would be dependent on the location and severity of the fire and precipitation events following the fire.

Proposed Action Alternative: Under this alternative, it is expected that burn intensities from wildfires would be reduced. This would directly reduce the overall erosion/sediment potentials from what could occur if the units were not treated. It is estimated that the reduction in fire intensities would directly reduce sediment potentials 20% to 30% below that projected from untreated sites on USFS lands and 5% to 23% on BLM lands.

The floodplains of Cusick, Johnny, Gibson Jack, Mink, Kinney, Fort Hall Canyon, Papoose and Indian Creeks would be adequately protected from upland sediment and erosion from the proposed actions by the 200-foot buffer strip. Buffer areas are strips of natural vegetation along streams that filter sediment from overland flow by trapping it in the organic matter, live woody trunks, fallen trees, brush and leaves, preventing sediment from entering the streams. This buffer strip would be enough to filter overland flow from all but the most extreme precipitation events. Floodplain protection of the intermittent/ephemeral Buck and Doe Creeks, Trough and Morris Canyons and Smith Gulch would also occur by a 100' buffer strip either side of the channel. Wildfire impacts, even after the Proposed Action alternative treatments, would likely impact the floodplains by channelizing overland flow and increase sediment from the watershed to the stream. The above-mentioned stipulations under this Proposed Action qualify as recognized best management practices (BMP's) to protect water quality.

Buffer strips, slope restrictions and spring or late fall prescribed burning would protect water quality by reducing erosion rates and allowing for the greatest amount of sediment trapping efficiency.

The only treatments that would occur within riparian buffer strips would be small hand-thinnings to rejuvenate aspen stands. These thinnings would not be contiguous, and would not significantly nor measurably change the floodplain condition from the present.

All treatments on private lands would be hand-treatments, such as light thinning, and would not measurably degrade overall watershed stability or downstream water quality below current conditions.

Cumulative Impacts of the proposed alternative: Over the short-term, proposed treatments remove vegetation from a site and may disturb the ground. The affected portion of the watershed could be reduced from a stable condition to an unstable condition. However, over the long-term, as the vegetation grows back and disturbances are stabilized, this effect would be reversed. In some situations, overall conditions would actually be improved over existing condition as the result of the proposed treatments.

Fisheries

No Action Alternative: Only Gibson Jack and Mink Creeks sustain a fishery. For analysis purposes a hot, high intensity fire was assumed across both of these creeks. Under this scenario, sediment loading to both streams would drastically increase from the current level of around 0.5 tons/acre to a range of 1-37 tons/acre, averaging around 18 tons/acre. The riparian zone would most likely be impacted thereby reducing its ability to buffer the impacts from sediment loads of this magnitude. Neither Gibson Jack Creek nor Mink Creek are capable of transporting catastrophic increases in sediment load. Excessive sediment deposition would occur: pools and runs would fill, greatly reducing the quantity and quality of available habitat for salmonids. Channel braiding would increase, further reducing habitat availability for salmonids. Riffle cobbles would become embedded with silt, reducing the available habitat for macroinvertebrates (fish food), sculpins (trout prey base) and algae (primary productivity). Spawning gravels would become heavily laden with fine sediment, smothering eggs or greatly reducing hatching success and greatly reducing the reproductive success of resident salmonids. Turbidity would also

increase, impacting the respiratory function of both salmonids and macroinvertebrates. Reduced canopy cover would increase water temperature, stressing cold water salmonids. Reduced riparian habitat condition would reduce stream bank stability, increasing bank failure and sediment loading.

Overall riparian and aquatic health as well as aquatic organism productivity could be greatly impacted under this alternative. The quantity and quality of Yellowstone cutthroat trout (YCT) habitat could be greatly reduced, with a corresponding substantial reduction in overall YCT productivity.

Proposed Action Alternative: The Gibson Jack Creek watershed would be treated in years 1, 2, 4 and 5. The clearing, hand thinning and machine thinning would produce little or no measurable increase in sediment loading to Gibson Jack Creek. The 168 acres treated by prescribed fire would produce only a slight increase in sediment loading having no effect on YCT.

The Mink Creek watershed would be treated in years 1, 3, 4 and 5. In the prescribed fire treatment areas, there would be an increase in sediment loading from around 0.5 tons per acre pre-treatment to approximately 0.5 to 6 tons per acre post-treatment. It is anticipated that the proposed treatments within the Mink Creek drainage would have no appreciable impacts to either the fisheries habitat or spawning. The 13 acres treated in year 3 by prescribed fire would produce only a negligible impact on the sediment loading. Sediment analysis indicates that the machine and hand thinnings would create little or no increase in sediment loading.

Cumulative Impacts of the proposed action: There would be a short-term spike in sediment loading to both watersheds under the Proposed Action, depending on the size and duration of precipitation events. The discharge on both streams during spring runoff would be able to handle the increased sediment load. Thus there would be only short-term impacts to the water and salmonid habitat quality or to the water quantity.

Cumulative impacts on water quality and salmonid habitat following five years of treatment would also be minimal as ground cover would recover within 1-2 months following treatment. There may be a slight increase in peak flows and a slight reduction in the duration of spring runoff after five years of treatment as the result of increased open areas. This would speed up snowmelt and increase peak flows slightly in both streams. The hand thinning proposed in the riparian zones would not significantly reduce the canopy cover or the water quality buffering ability of Gibson Jack or Mink Creek. Therefore, there would be little or no impact on water temperatures or water quality of either stream. Overall, the fuels reduction prescriptions of the proposed action would not have significant impacts on the Yellowstone cutthroat trout fishery in Gibson Jack or Mink Creeks.

Wildlife and Special Status Species

No Action Alternative: Each habitat type in the project area supports a predictable complement of wildlife species. The habitats occur in different locations within the project area and the kinds and numbers of wildlife species found utilizing them is fairly predictable with variations occurring along the edges between habitats. Appendix 2 lists the birds and other animals by habitat. Under natural conditions there is a slow change in habitats through vegetation succession. A large-scale fire would cause a sudden change in the vegetation communities to an early seral stage of vegetation. The variety of wildlife using recently burned vegetation tends to be an assemblage of grassland species suited to a structurally simple habitat. A different mix of wildlife would be attracted to the differing habitats as they change. Without the proposed action, the vegetation succession would trend toward the climax vegetation for the soil type with which it is associated. The wildlife found in this habitat would be typical for that vegetation type. All the vegetation types scheduled for treatment are common in the area and the majority of wildlife is also typically common for the area.

Proposed Action Alternative: The wildlife species affected by the proposed project would differ among the various habitat types being treated. Of the 27,200 acres in the project area, approximately 2,740 acres

or 10% is scheduled for treatment over the ten year project life. The number of acres scheduled for treatment in any one given year is within the range of expected disturbance in these vegetation types. The magnitude of the disturbance would not seriously affect the number of any species expected in those habitat types.

Cumulative effects of the Proposed Action Alternative: Treatment areas would be small with none scheduled to be greater than 278 acres. The habitat types scheduled for treatment are common habitat types and none are in short supply in the project area. Anticipated impacts to different species would vary with time of year and the type of treatment. Limbing, brush cutting and burning could destroy shrubs or trees containing nests or foraging substrates for different birds or animals. Small mammals might be killed if they have no underground shelter that would protect them from the heat of a burning project. The overall effect of the treatments would be to create a seral type habitat with different vegetation within a large habitat block. This new vegetation would support different birds and animals and different numbers of these new birds and animals. As the vegetation matures, the animals that moved in immediately after the treatment would, in part, be replaced by different animals. In some cases, by the time the ninth year of treatments starts, the vegetation that was treated in the first year is approaching what it was originally and again supports the original complement of animals.

T&E/Sensitive Plants and Animals

Forest Service and BLM Idaho sensitive species associated with riparian and timbered habitat include: northern leopard frog, western toad, common garter snake, small-footed myotis, long-eared myotis, long-legged myotis, Yuma myotis, Townsend's big-eared bat, northern goshawk, red-naped sapsucker, Williamson's sapsucker, dusky flycatcher, Cordilleran flycatcher, Hammond's flycatcher, willow flycatcher, yellow warbler, MacGillivray's warbler, Wilson's warbler, Scott's oriole, Swainson's thrush, veery, flammulated owl and calliope hummingbird. *See table below for a complete list of sensitive wildlife species.* Brush associated species typically found in the area would include Brewer's sparrow, sage sparrow, sage thrasher, loggerhead shrike, and sharp-tailed grouse. These species are not expected to be impacted from proposed treatments.

The Fish and Wildlife Service's March 3, 2003, 90-day Pocatello Field Office Species List (Sp # 1-4-03-SP-276) included the following: gray wolf, bald eagle, Bliss Rapids snail, Canada lynx, and Utah valvata snail. The yellow-billed cuckoo is shown as a candidate species. None of these species occur in the area on a regular basis and would not be adversely affected by the project.

No threatened or endangered species of flora or fauna have been identified in the project area.

Research Natural Areas (RNA)

No Action Alternative: There are no expected direct effects to the Gibson Jack RNA. Indirect and cumulative impacts are related to the greater potential of a large fire starting within the RNA or adjacent to it and burning uncontrollably. More so than a wildfire, emergency suppression activities pose a threat to the natural ecological communities, species, and processes that the RNA was designed to represent by disturbing the ground mechanically, and the use of retardants which could harm the aquatic communities within the RNA. Post-burn rehabilitation activities could also pose a threat to the plant biodiversity within and around the RNA by introducing non-genetically local plant material and non-native plants by reseeding, unintentional reintroduction or the use of mulch to reduce unacceptable erosion impacts.

Proposed Action Alternative: The proposed project does not include activities within the RNA, but prescribed burns and road/trail clearing are proposed along the boundaries of the RNA. Potential indirect and cumulative impacts to the RNA from the proposed actions could be beneficial or negative. Beneficial impacts include a reduced potential of an uncontrollable wildfire and subsequent adverse impacts of emergency suppression and rehabilitation activities as discussed for the No Action Alternative. Potential

negative impacts include the spread of noxious and invasive plant species into the RNA from the creation of bare ground from the burning and other disturbance activities. These impacts would be mitigated through the application of project design criteria.

Chapter 4. CONSULTATION AND COORDINATION

Public Outreach and Scoping

About 350 letters were mailed to interested parties and adjacent landowners. The City of Pocatello Fire Department hand delivered another 200 copies of the letter to residents living inside the project. A legal notice and a series of news releases were placed in the Idaho State Journal. An open house for this project was held March 8, 2003, and approximately 60 people attended. A field trip to the area with local media occurred during the initial scoping period. A second field trip with local environmental groups was also held. The GIFF spokesman, a local homeowner, a representative from Pocatello Fire Department, and a BLM spokesman did a thirty-minute talk show with the local public access cable channel. In cooperation with the Shoshone-Bannock Technical Staff and in official consultation with the Fort Hall Business Council, Tribal issues and concerns have been incorporated into the design of the proposed project.

Agencies, Tribes and Persons Consulted

Following are organizations or individuals with whom the interdisciplinary team has consulted. For a complete list, see Appendix 1:

Federal Agencies
- Bureau of Land Management
- U.S. Forest Service
- U.S. Fish & Wildlife Service
- Bureau of Indian Affairs
- Natural Resources Conservation Service
- Environmental Protection Agency

State Agencies
- Idaho Department of Lands
- Idaho Department of Fish & Game
- Idaho Department of Environmental Quality
- Idaho Bureau of Disaster Services

City/County Governments
- City of Pocatello
- Bannock County Commission
- Bannock County Roads & Bridges
- Bannock County Emergency Services

Tribal Governments
- Shoshone Bannock Tribes

Gateway Interagency Fire Front (GIFF)
Idaho Congressional Delegation
Portneuf Watershed Advisory Group
BLM and Forest Service Permittees
Western Watersheds Project
Committee for High Desert
Greater Yellowstone Coalition
Idaho Conservation League
Sierra Club
Private Individuals, as listed in Appendix 1.

Appendices: (see project record)

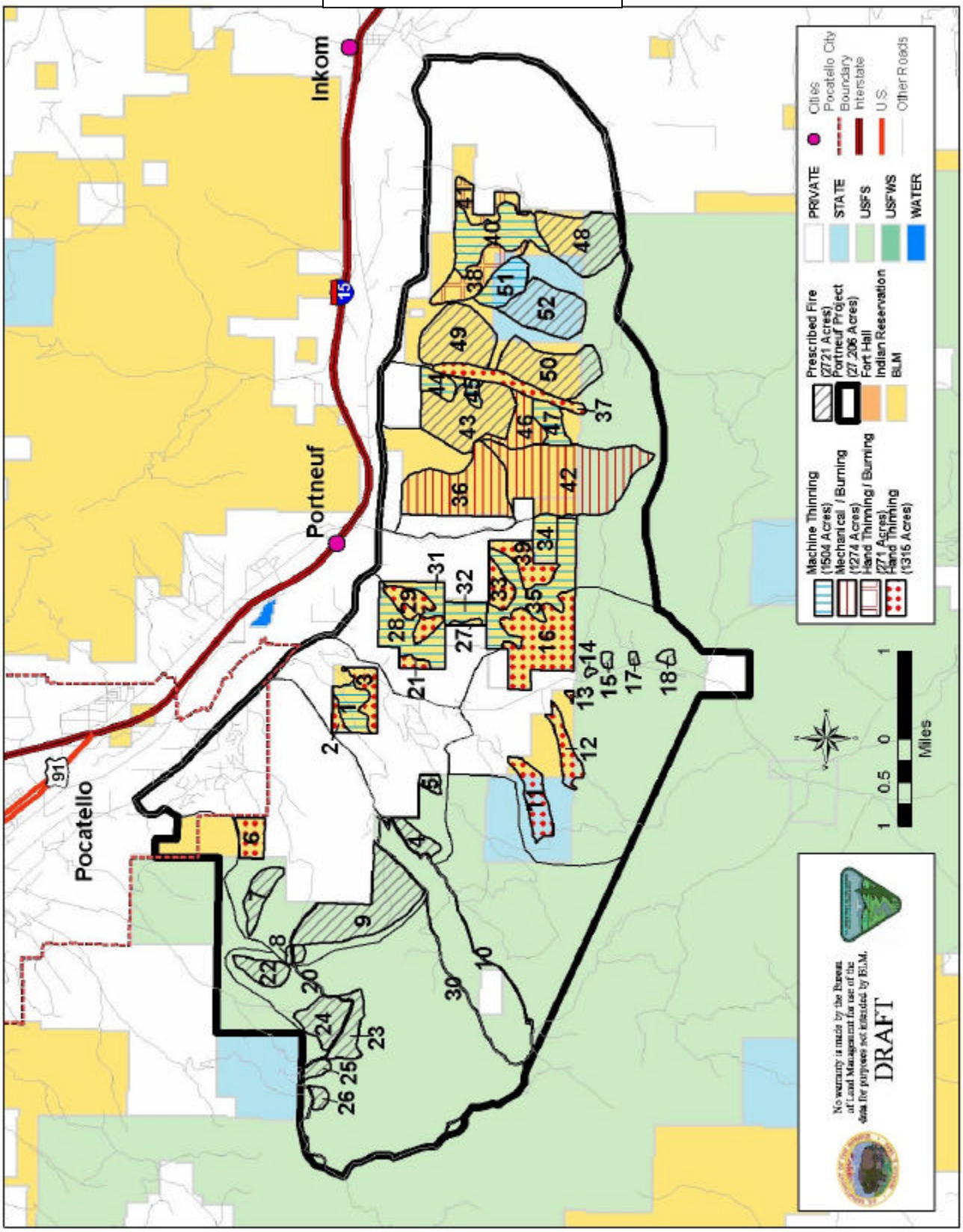
Appendix 1: Agencies and Persons Consulted.
Appendix 2: Birds and Animals by Habitat
Appendix 3: Caribou Forest Plan (2003) Management Direction that applies to the Portneuf Westbench Fuels Management Project
Appendix 4: References

Attachments:

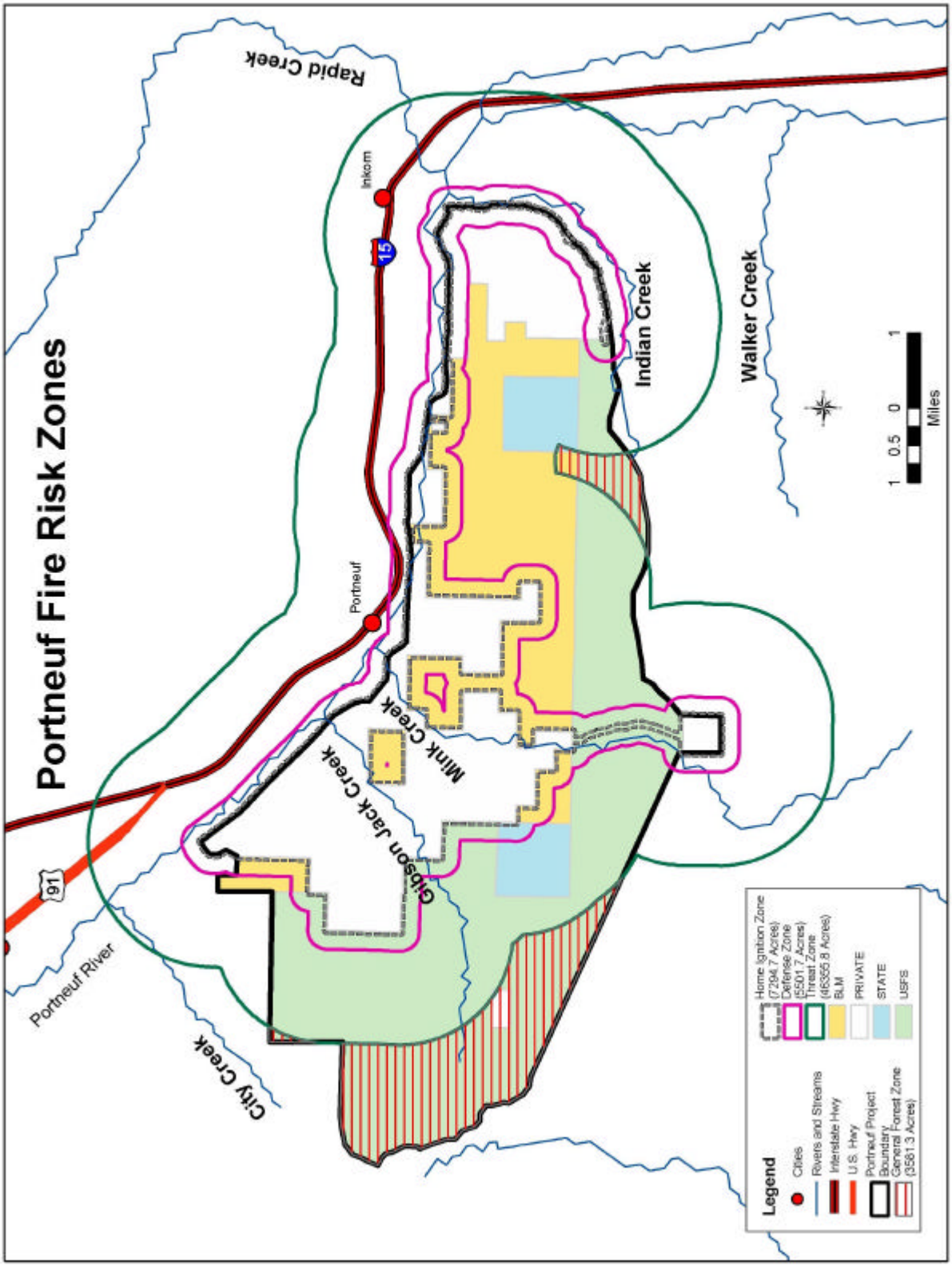
Attachment 1: Treatment Area Map
Fire Risk Zone Map
Wildfire Occurrence Map

Attachment 2: Treatment Unit Table

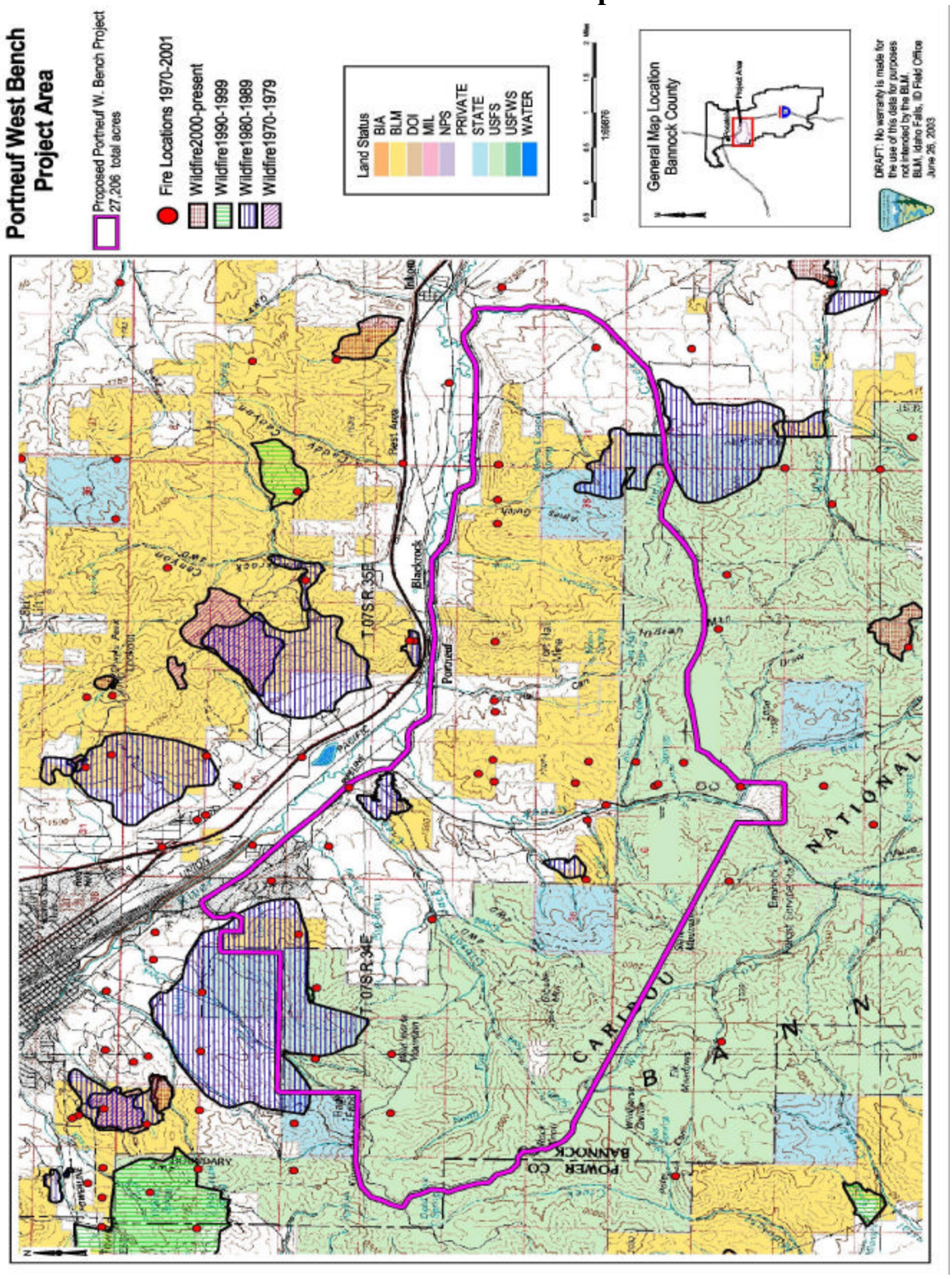
Treatment Area Map



Fire Risk Zones



Wildfire Occurrence Map



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Attachment 2:

PORTNEUF WEST BENCH FUELS MANAGEMENT UNITS -

unit number & project priority	TREAT_TYPE	ACRES	Max. % of unit to be treated	proposed year
1	Machine	103	50	1
2	hand_thin	28	50	1
3	hand_thin	84	50	1
4	rx_fire	65	40	1
5	rx_fire	26	40	1
6	hand_thin	86	50	2
7	rx_fire	97	30	2
8	rx_fire	25	30	2
9	rx_fire	443	30	2
10	Clearing	19	30	2
11	hand_thin	135	50	3
12	hand_thin	92	30	3
13	hand_thin	5	50	3
14	rx_fire	6	50	3
15	rx_fire	13	30	3
16	hand_thin	383	30	3
17	rx_fire	8	30	3
18	rx_fire	16	30	3
19	Clearing	11	30	4
20	Clearing	86	30	4
21	hand_thin	28	50	4
22	rx_fire	90	30	4
23	rx_fire	103	30	4
24	rx_fire	145	30	4
25	rx_fire	31	30	4
26	rx_fire	27	30	4
27	hand_thin	12	50	5
28	Machine	217	50	5
29	hand_thin	122	50	5
30	Clearing	43	30	5
31	Machine	72	50	5
32	Machine	68	50	5
33	hand_thin	75	40	5
34	Machine	99	40	5
35	Machine	345	40	5
36	mech/burn	447	50	6
37	hand_thin	144	25	6
38	hand_thin/burn	175	50	6
39	hand_thin	123	40	6
40	Machine	273	50	6
41	hand_thin/burn	96	50	6
42	mech/burn	696	40	7
43	rx_fire	368	30	7
44	Machine	64	30	7
45	Machine	41	30	7
46	mech/burn	131	30	8
47	Machine	88	50	8
48	rx_fire	331	30	8
49	rx_fire	309	30	8
50	rx_fire	324	30	8
51	Machine	133	30	9
52	rx_fire	270	40	9